



Energy Procurement
Renewable Energy
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August 18, 2015

Ms. Michele Dermer
EPA Region 9, WTR-9
75 Hawthorne St.
San Francisco, CA 94105

**Subject: Revised Temperature Log for Piacentine 1-27 Observation Well
PG&E Test Injection/Withdrawal Well 1
Permit No. R9UIC-CA5-FY13-1
King Island, San Joaquin County, California**

Dear Ms. Dermer:

On July 8, 2015, PG&E submitted to the EPA a temperature log for the Piacentine 1-27 well. EPA had requested the log in their letter to PG&E dated June 30, 2015. In an email to PG&E dated August 12, 2015, EPA indicated that the temperature log lacked a gamma ray log trace and that the scale did not comply with the EPA Temperature Logging Requirements document that specifies a scale of 1 to 2 degrees per inch. EPA also indicated that future temperature logs should be properly scaled and include a gamma log trace.

PG&E made the changes requested by the EPA to the enclosed temperature log. EPA should note that the only gamma ray log trace available for the Piacentine 1-27 was from the thermal multi-gate decay lithology (TMDL) log, which covers only the bottom portion of the logged interval (from 4,169 to 4,682 feet) because the objective of the log was to evaluate water saturation in the injection zone. Due to the large temperature range from surface to the bottom of the log, the 2 degrees-F per inch horizontal log scale required that the temperature trace be "wrapped" several times over the length of the log and produced a near horizontal trace near the bottom of the log where the temperature gradient was highest.

If you have any questions regarding this letter or the enclosed log, or require additional information, please feel free to contact me at (415) 973-6270.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mike Medeiros". The signature is fluid and cursive, with a large initial "M".

Mike Medeiros
Manager, Renewable Energy Development

Cc: Mr. James Walker, EPA Consultant
Mr. Michael Woods, Division of Oil, Gas and Geothermal Resources
Ms. Anne L. Olson, Central Valley Regional Water Quality Control Board

Enclosures: Data CD Including:
Attachment 1 – Temperature log for Piacentine 1-27 well